

specifying a peel occurring time and a fragility breaking time when charged particles are increased; and

measuring ~~a~~ the at least one of peel strength and/or a ~~and the~~ fragility breaking strength.

Claim 2. (Currently Amended) ~~A material strength measuring and evaluating method by detecting charged particles~~ The method according to claim 1, wherein further comprising:

forming the test object is ~~formed by~~ to include a substrate and fragile thin film covering the substrate.

21  
318  
Claim 3. (Currently Amended) ~~A material strength measuring and evaluating method by detecting charged particles~~ The method according to claim 1, wherein further comprising:

horizontally positioning the test object is ~~positioned horizontally~~ and vertically pressing the indenter is ~~vertically pressed~~ into ~~the~~ a surface of the test object.

Claim 4. (Currently Amended) ~~A material strength measuring and evaluating method by detecting charged particles~~ The method according to claim 1, wherein the test object is arranged to form a tilt angle with ~~the~~ a pressing direction of the indenter, so that the indenter is pressed in a direction inclined with respect to ~~the~~ a surface of the test object.

Claim 5. (Currently Amended) ~~A material strength measuring and evaluating method by detecting charged particles~~ The method according to claim 1, wherein when charged particles are collected by a charged particle collecting element, an electric potential having a polarity different from that of the charged particles to be collected is applied to the charged particle collecting element.

21  
Gib

Claim 6. (Currently Amended) ~~A material strength measuring and evaluating apparatus, which functions by detecting charged particles, said apparatus~~ comprising:

- a sample mounting base for mounting a test object;
- an indenter to be pressed into the test object;
- a charged particle collecting element disposed in the vicinity of ~~the~~ a front end portion of the indenter and formed integrally with or independently from the indenter;
- an indentation load detector for detecting an indentation load of the indenter;
- a displacement detector for detecting a displacement amount of the indenter; and
- a signal processing system for measuring at least one of a peel strength at the time of peel occurrence ~~and/or~~ and a fragility breaking strength at the time of fragility breaking, in accordance with the output signals fed from the indentation load detector, the displacement detector and the charged particle collecting element.

Claim 7. (Currently Amended) ~~A material strength measuring and evaluating apparatus which functions by detecting charged particles~~ The apparatus according to claim 6, wherein a sample setting surface on the sample mounting base is changeable between a horizontal state and an inclined state.

Claim 8. (Currently Amended) ~~A material strength measuring and evaluating apparatus which functions by detecting charged particles~~ The apparatus according to claim 6, wherein the front end portion of the indenter is formed by a diamond, a sapphire or a piezo-electric material.